

REMARKS

Applicants respectfully request reconsideration of the present application in view of the foregoing amendments and in view of the reasons that follow.

Claims 1 and 11 are currently being amended. The amendments are to improve the form of the claims and do not narrow their scope.

This amendment changes claims in this application. A detailed listing of all claims that are, or were, in the application, irrespective of whether the claim(s) remain under examination in the application, is presented, with an appropriate defined status identifier.

After amending the claims as set forth above, claims 1-31 are now pending in this application.

Rejection under 35 U.S.C. §103

Claims 1-31 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,953,514 to Gochee (hereafter “Gochee”) in view of U.S. Patent No. 6,539,416 to Takewaki et al. (hereafter “Takewaki”). Applicants respectfully traverse this rejection for at least the following reasons.

The present invention is directed to a distributed application control system and method therefore. One purpose of the invention is to provide a distributed application control system where the shell agent interprets script language, and moves itself or communicates with an agent platform of a remote computer so that an application that is distributed over plural computers is controlled as a single script. In implementation the invention includes a number of features. Gochee fails to suggest the present invention.

Gochee extends the function of the remote shell (rsh) of UNIX to cause a remote computer to carry out rsh, with the directory of the original site being saved, on the remote computer. A function like an “on-command” of Solaris, rather than rsh, is performed. With this “on-command”, it is presumed that both the computers are Solaris and have the same directory structure.

By contrast, according to the present invention, even if the operating system (OS) differs, the working directory can be delivered to a remote computer so that the command can be executed on the same directory. In accordance with the present invention, the invention can be applied to such an environment wherein there is a common file system, and where the file system may be mounted on plural computers different in OS from one another. In the present invention, even if the directory management method differs in each of the OSs, the directories are interchanged and the shell can be executed by correct matching to the directory construction and expression method of the counterpart party.

With the script of the present invention, the working directory can be moved across a universal file system. When a directory is moved, not only is the remote file system visible, but also the site of actual execution is moved to a computer where the directory exists. In case of a generally used file sharing system, even though the remote file appears as if it is a local file, the remote file is executed by the local computer, with the site of execution being local. By contrast, according to the present invention, when a remote file is the working directory, the execution itself is done by the remote computer. In order to achieve this, a mobile agent is used. As one example, it is possible to move to the directory of a computer A, to open Powerpoint for a certain file in the computer A, then move to the directory of a computer B and to open Powerpoint for a separate file for the computer B. In the Gochee system, if the computer name and the command are specified in executing a script on a remote controller, the working directory is set in the same directory of the counterpart party as the directory of the calling party and the command is executed on the counterpart party.

According to the present invention, such directory synchronization is not made, but a universal directory is prepared, and the directory is specified by a command such as “cd”(change directory), with the command being carried out by a specified local directory on a computer where the moved directory exists. There is no presumption that a counterpart party and the calling party co-own the same file system.

Gochee discloses in Figure 1 a disc storage that is commonly shared, and thus suggests a common file system in contrast to the universal directory of the present invention. Gochee also discloses directory synchronization, where in the present invention no directory synchronization is required.

Specifically with respect to independent claims 1, 11 and 21-23, Gochee lacks features of these claims. According to the present invention, the mobile agent continues to execute the script, as it is moved through the computers, and cd of the universal directory is continued, and is not for synchronizing the directory to execute the rsh as disclosed in Gochee. Further, Gochee is structurally different and provides only a UNIX Shell, local agent, a file server and a disc storage, not all of the structure including a shell agent, a local service agent, an agent base including the application agent, an agent mover, a thread generator, a remote call and an agent generator.

Gochee also lacks specific features of certain of the present dependent claims. For example, with respect to claims 2 and 12 the working directory of Gochee is the working directory of the caller, while the current directory of the present invention is the directory resulting from the shell agent having changed the directory (cd). With respect to claims 3 and 13, Gochee lacks a repository path. With respect to claims 4 and 14, Gochee lacks a status table. This status table manages the information as to whether or not the agent is performing the execution in parallel while Gochee does not disclose any concept of parallel execution. With respect to claims 6 and 16, Gochee fails to disclose the agent reference table.

Takewaki fails to cure the deficiencies of Gochee. Takewaki discloses a mobile agent and providing an agent holding server for temporal saving in case of congestion. Takewaki is quite different from the present invention except for the disclosure of a 'mobile agent' and also does not suggest the present invention.

Applicant believes that the present application is now in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicant hereby petitions for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 19-0741.

Respectfully submitted,

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